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U. S. Department of Agriculture

EXPORTS OF FARM PRODUCTS

LETTER

FROM

THE SECRETARY OF AGRICULTURE

TRANSMITTING

PURSUANT TO SENATE RESOLUTION NO. 356, A REPORT ON THE REDUCTION IN VALUE OF EXPORTS OF FARM PRODUCTS IN CRUDE AND FINISHED FORM AND THE MEASURES THE DEPARTMENT OF AGRICULTURE IS USING TO STIMULATE FOREIGN CONSUMPTION OF AMERICAN FARM PRODUCTS

MARCH 2 (calendar day, MARCH 4), 1927.—Referred to the Committee on Agriculture and Forestry and ordered to be printed, with illustrations

DEPARTMENT OF AGRICULTURE,
Washington, March 2, 1927.

Hon. CHARLES G. DAWES,
President of the United States Senate,
Washington, D. C.

DEAR MR. VICE PRESIDENT: Senate Resolution 356 has been received:

Resolved, That the Secretary of Agriculture be requested to inform the Senate, at his earliest convenience, the chief causes, in his mind, for the reduction in the value of exports of farm products in crude and finished form, what measures the Department of Agriculture is using to stimulate foreign consumption of American farm products, and what cooperation, if any, the department receives from other governmental agencies in doing this, and if, in his judgment, it is probable that in the next few years there will be a greater demand for American farm products at a price remunerative to the producers, or whether higher prices American farmers might receive for their staple products will encourage a larger production thereof.

In order to place before the Senate complete information and to convey a well-rounded impression of the situation with respect to the entire export trade in farm products and of the activities of the department in promoting and facilitating such trade, it is desired

to present in the attached memoranda a broader discussion than is implied in the resolution itself. Whereas the resolution refers to the reduction in value of exports between 1925 and 1926 of crude foodstuffs, food animals, and manufactured foodstuffs, and to the foreign market prospects for our crops of 1927, it is of far greater importance to give consideration to the long time tendencies in the trade in these products and accompanying readjustments in production. Other products, such as cotton and tobacco, which are omitted from the resolution, are taken into account in this connection.

The appropriation act of the Department of Agriculture relating to foreign activities provides as follows:

That \$65,360 shall be available to collect and disseminate to American producers, importers, exporters, and other interested persons information relative to the world supply of and need for American agricultural products, marketing methods, conditions, prices, and other factors, a knowledge of which is necessary to the advantageous disposition of such products in foreign countries. * * *

During recent years the department has been gradually developing a world crop and market reporting service on a limited scale. The increasing use of data relating to foreign production and market possibilities by cooperative marketing organizations, producers, and exporters is increasing greatly the demands made upon this branch of the department's service.

Sincerely yours,

W. M. JARDINE, *Secretary.*

WHAT MEASURES THE DEPARTMENT OF AGRICULTURE IS USING TO STIMULATE FOREIGN CONSUMPTION OF AMERICAN FARM PRODUCTS

It is assumed that this question should be construed to include all activities of the department whose aim is to facilitate the sale abroad of agricultural products. These may be summarized as follows:

(1) Promulgation and enforcement of official grades and standards for farm products and inspection and certification of certain products for export. Service work in foreign countries in connection with the use of Universal Standards for American cotton.

(2) Continuous study of foreign markets for agricultural products as to conditions of supply, demand, price relationships, and grades and qualities of products preferred.

(3) Supplying foreign market information to farmers, cooperative associations, exporters, and others for their guidance in maintaining a flow of products abroad adjusted to the capacity and preferences of foreign markets.

It is believed that by promoting the confidence of foreign merchants and consumers in the uniformity, attractiveness, and integrity of American products, by clarifying the use of trade terminology as between American sellers and foreign buyers, by using its influence in cooperation with other branches of the Government in removing artificial restrictions from the channels of trade, and finally by keeping all branches of the American agricultural industry, including producers' organizations and private traders, informed with respect to the possibilities of foreign markets, the department is very materially facilitating export trade.



Foreign demand for farm products is continually changing, and it is a function of the department's service to search out and analyze such changes as they occur, carrying the information back to producers and their marketing agencies. In many cases such shifts in demand require readjustments on the farms themselves. A change of greatest importance to tobacco growers is taking place in our principal foreign markets at the present moment, that is, a declining consumption of chewing, pipe, and snuff tobaccos, and a rapidly growing consumption of cigarettes. This has caused a marked reduction in exports of certain types of raw tobacco and large increases in other types. The department, through its outlook reports the past two years and through the extension service and the State colleges, has brought to the attention of producers the necessity of making readjustments in the types of tobacco grown.

In other cases shifts in foreign demand require only modifications in grading of products to fit the new conditions or modifications of the selection of products to be sent abroad. The department's trained representatives in foreign markets are constantly studying and reporting on new developments in market demand or competitive production which may affect our export trade.

Through its commodity marketing divisions the department gives intensive study to all phases of domestic and foreign marketing. Technical as well as more general economic problems are encountered. Examples of commodity marketing work are given in the following paragraphs relating to cotton and grain.

The department believes that efforts to increase the use of American cotton abroad must be in the direction of facilitating buying and of increasing its suitability and attractiveness in order that it may compete more advantageously with the cotton of other lands. America has been the world's greatest cotton producer for more than a century and a quarter, in part because of the superiority of her cotton for spinning purposes and in part because of its uniformity. The Department of Agriculture has played a leading rôle in the development of production in a way to bring about this condition. It is significant that in the present year of surplus, American cotton has displaced Indian cotton to an extent estimated to be greater than a million bales. With respect to the cottons of newer competing countries, the most common complaint is their irregularity and the uncertainty of their quality.

The department's cotton work has proceeded along three principal lines, standardization of quality, improvement and standardization of the bale, and analysis of present and potential demand. Standardization facilitates business in numerous ways, the standards serving both to enable the buyer accurately to describe the cotton he desires and the seller likewise to describe the cotton he has for sale, thus bringing the two together and tending to increase the buyer's assurance that he will receive just what he orders. The department has entered into agreements with the principal cotton trade associations of Europe under which universal standards for grade of American cotton have been adopted. The division of cotton marketing prepares and distributes the universal standards for use in the world's markets. It maintains also a technically qualified representative in Europe whose duty it is to service the standards held by European buyers of American cotton, and by means of demonstrations to assist

European holders in the use of them. These demonstrations have been effective in acquainting handlers and users of American cotton with the advantages of the standards. Under the agreements with the department, representatives of European cotton exchanges come to Washington each second year to confer on the universal standards. The cotton associations of Japan have indicated their desire to be included in these agreements. Some negotiations have also been undertaken with the European associations for the similar adoption of standards for length of staple. The work of standardizing cotton has been developed to a higher degree in the United States than in any other country.

Although the contents of the American bale are better standardized than the cotton of any other country, the bales reach spinners' markets, as a rule, in a dilapidated condition and with an excessive weight of covering. In this respect, American cotton is at a disadvantage as compared with the cotton of almost any other producing country in the world. Actual waste of cotton results from this condition and needless costs are incurred. The foreign buyer complains of both facts. It is hoped that as a result of studies under way the American bale can be made to reach the world's markets in packages which will be equal to the world's best rather than the poorest.

The work of analyzing demand for cotton is already in progress under authority and with funds provided by Congress in the present session. As progress is made in this work it should result in enabling American producers more and more to fit their production to the world's requirements, thus increasing the margin of its desirability and suitability for the world's needs over the growths of other lands. The program of work calls for a study concurrently of the opportunities for new uses of cotton. This includes a further study of the tare on American bales with the ultimate view of determining the practicability of covering cotton and other agricultural products with suitable materials made of cotton in preference to those made of imported fibers.

United States foreign trade in cereals, which has been a substantial part of our export trade in farm products, has received the stimulus of the department's standardization program. Official standards for shelled corn, wheat, oats, rye, grain sorghums, feed oats, mixed-feed oats, and barley have been established pursuant to the provisions of the United States grain standards act. These standards form the basis as to quality and condition of contracts for grain shipped in export commerce from United States ports. The standards themselves are specific in their requirements, thus giving foreign buyers full information as to the quality of the product which they may expect to receive under any particular grade designation, and in addition, the application of the standards is performed by licensed inspectors working under the supervision of this department. The benefits accruing from the conduct of this service are substantial, as indicated by the confidence of foreign buyers in the integrity of licensed inspectors' certificates issued under Federal Government supervision and the definite basis of contract afforded by this system of standards.

Contrary to the situation in some of the staples, such as cereals, meat, and dairy products, the United States is enjoying an expanding foreign market for fruits, as may be observed from the following

table. The average annual exports of apples for the years 1922-1926 have been almost double the average of 1910-1914, while exports of prunes have been 62 per cent larger and raisins 400 per cent larger. Grapefruit have found a foreign outlet since the war for the first time.

Exports of apples, grapefruit, prunes, and raisins from the United States

Year ended June 30	Apples	Grapefruit	Prunes	Raisins
	<i>1,000 boxes</i>	<i>1,000 boxes</i>	<i>1,000 lbs.</i>	<i>1,000 lbs.</i>
1910-1914 average-----	4,653	(¹)	80,428	18,004
1922-----	3,282	(¹)	109,398	49,639
1923-----	5,270	252	79,229	93,962
1924-----	12,294	305	136,448	88,152
1925-----	9,603	427	171,771	90,783
1926-----	11,017	379	151,405	135,027
1922-1926 average-----	8,293	-----	129,650	91,513
	<i>\$1,000</i>	<i>\$1,000</i>	<i>\$1,000</i>	<i>\$1,000</i>
1910-1914 average-----	5,670	(¹)	4,715	1,070
1922-----	8,617	(¹)	9,755	8,029
1923-----	9,199	830	7,583	10,284
1924-----	23,161	827	8,572	7,893
1925-----	19,382	1,300	11,458	6,788
1926-----	22,762	1,641	11,625	10,247
1922-1926 average-----	16,624	-----	9,799	8,648

¹ Not shown separately prior to January, 1922.

For the past three seasons the department has had a fruit specialist in Europe who has assisted American growers and shippers of fruit to expand their foreign markets and to increase the profits from their shipments. American shippers have been kept informed as to prices paid for fruit in European markets and the factors which have influenced these prices, such as competitive supplies of fruit, conditions affecting demand and the condition of the American fruit on the market. This specialist has worked very closely with the British health authorities and with American growers and shippers in connection with the threatened shutting out of American apples on the ground of excessive poison-spray residue. These efforts were instrumental in averting serious consequences to our export trade in apples. Studies have been made of the practices followed in the export fruit trade and improvements have been recommended. Letters have been written to individual shippers commenting on the condition of their fruit upon arrival at foreign markets, thus enabling them in some instances to make profitable changes. Reports have been made on the methods of distribution and the consumption of fruit in all the important markets of the United Kingdom and north-west Europe. Efforts have been made to increase the consumption of American fruit in markets, such as Paris, where it has been little known in the past. During the 1925-26 season for the first time American apples were sent to the Paris market in carload lots. Surveys have been made of the various fruit-growing industries of Europe, such as apples in Great Britain, Italy, Czechoslovakia, and Switzerland; prunes in Yugoslavia; and oranges in Spain, which compete with American fruits on the European markets. Reports are also made on the conditions of these crops at the beginning of the season.

important market for American tobacco, ranking second only to Great Britain in 1925 and 1926, while our exports of wheat to that country are important in some years. Japan is one of our important cotton markets, ranking with the principal European countries. In certain years of heavy rice crops in California, Japan is an outlet for considerable quantities of rice. A careful analysis of the 1926-27 rice-market situation in Japan has been made by the department's representative and a report released to the California rice industry giving information as to rice supplies in Japan, prices, import requirements and prospects for marketing California rice. The department hopes to be able to maintain representatives permanently in the Orient to assist in developing markets for agricultural products and to study and report on trends of agricultural production.

WHAT ARE THE CHIEF CAUSES FOR THE REDUCTION IN THE VALUE OF EXPORTS OF FARM PRODUCTS IN CRUDE AND FINISHED FORM?

Changes in the value or volume of exports from one year to another may be due largely or entirely to seasonal or cyclical variations in production, or to temporary changes in the demand or purchasing power of consumers. The long-time tendencies and causes of long-time changes are of more significance. In reply to your question, both the temporary conditions and the long-time tendencies will be considered.

The chief causes for the decline in value of exports of farm products between 1925 and 1926 were larger supplies of some crops which could be disposed of only at low prices; smaller exportable surpluses of other products; increased production in countries which buy our agricultural products; increased competition from other exporting countries; reduced purchasing power in the United Kingdom, our most important market for many products; and a reduction in the general price level for all commodities. The chief reason for expecting foreign demand for the products of the 1927 crop season to be less than for the products of 1926, as indicated in the Outlook Report, is that with a favorable season the foreign production of many agricultural products is likely to be increased more than the foreign demand for such products. In the case of cotton, foreign consumption in the year is not likely to equal the exports from the large crop just harvested, thus leaving on hand a large carry over in foreign markets, which is likely to reduce the export demand for cotton from next year's crop.

As between the calendar years 1925 and 1926 the chief items in the reduction in the value of farm products exported from the United States were: (a) the drop in the prices of cotton and tobacco, and (b) decreased production of pork products in the United States. Although the exports of raw cotton, including linters, increased from 8,768,320 bales of 500 pounds in 1925 to 9,383,157 bales in 1926, the value of these exports declined from \$1,060,000,000 to \$814,000,000. Likewise total exports of leaf tobacco, while increasing in volume by 10,000,000 pounds, decreased in value by \$17,000,000. The decline in the exports of pork products in the same period was from 1,227,000,000 pounds to 1,120,000,000 pounds, or in value from \$225,277,000 to \$198,047,000.

Of the reduction of \$53,565,000 reported by the Department of Commerce in the value of exports of foodstuffs and food animals, as between 1925 and 1926, \$27,230,000 may, therefore, be attributed to the decline in exports of pork products alone. The United States was last year at the low point in the hog-production cycle with relatively high prices but not high enough to offset in value the reduction in volume of exports. There was also a reduction of \$4,544,000 in the value of dairy products exported. This reduction may be accounted for by the unusually low prices of dairy products last year in foreign markets, due to a temporary reduction in the demand or purchasing power of the United Kingdom, together with large production in many competing countries. Not only were exports reduced but imports of dairy products increased by \$4,135,000 in the same period. A reduction of \$20,590,000 in the value of exports of refined sugar is of little interest to the American farmer as the refined sugar exported is practically all foreign sugar which has been refined in the United States. These items, pork products, sugar, and dairy products, account for \$52,264,000 of the \$53,565,000 reduction in foodstuffs exports between 1925 and 1926.

But aside from the more or less temporary changes in exports the past year there has been a distinct downward trend in the volume and value in the exports of agricultural products since 1919. The value of exports of all agricultural products exclusive of forestry products declined from \$3,861,000,000 in the year 1919-20 to \$1,799,000,000 in 1922-23 and last year, 1925-26, to \$1,892,000,000. This decline brought the total volume of agricultural exports down to nearly the level of the five years just preceding the World War, while the value remains somewhat above as prices remain somewhat above the pre-war average. The chief causes for this decline were (1) the termination of the war and elimination thereby of the cause for an abnormal demand for many agricultural products; (2) reduced purchasing power in some countries, notably Germany; (3) the gradual recovery of European agriculture from the effects of the war; (4) the maintenance or expansion of production in many foreign countries competing with us in European markets; (5) rapid industrial and commercial development in the United States which expanded domestic markets. In addition to these factors which affected both the value and volume of exports, the decline in the general price level in the United States and all foreign countries with a stabilized currency contributed to the decline in values.

Notwithstanding the decline since 1919 the volume of agricultural exports remains above the pre-war average. In the 12 years before 1910 there was a decline in agricultural exports similar in many ways to the more rapid decline from 1919 to 1926. This loss of export trade was due (a) to the rapid industrial and commercial development of the United States which expanded domestic markets, (b) to radical changes in the agriculture of the United States, and (c) to the increased competition of other sources of supply. The growth of large industrial cities both through heavy immigration and the drift of farm population to industrial centers greatly increased the domestic demand for farm products which might otherwise have been exported. This increased demand was particularly strong for fruits and vegetables and dairy products, especially fresh milk. The expansion of production of these commodities checked, and in some

cases even reduced, the production of the commodities of which we formerly exported large volumes. The increase in the demand for fresh milk for the large industrial and commercial cities was largely responsible for the disappearance of the production of butter for export. Expansion of the dairy industry replaced wheat growing and beef production in many eastern districts, while the westward expansion of wheat production reduced lands available for grazing cattle.

The increase in competition was due to the development of new agricultural lands in Canada, Argentina, Australia, and New Zealand, together with improvements in transportation facilities, particularly for perishable products. During this period the American export trade in cattle and beef was almost completely destroyed by the rapid development of exports of refrigerated beef from Argentina and Australia. Our foreign trade in butter was lost to Denmark and Russia and that in cheese to Canada. Our wheat exports declined in competition with Canada, Argentina, and Australia. The American export trade in corn declined from an average of 192,500,000 bushels in the years ending June 30, 1897-1901, to an average of 56,600,000 bushels in 1907-1911, while as between the same 5-year periods Argentine corn exports increased from 33,000,000 bushels to 76,000,000 bushels.

The World War stimulated agricultural trade and by 1919 the volume of agricultural exports from the United States was the greatest on record. But as agricultural production in Europe revived and as international trade resumed its normal course there was a tendency for trade in certain farm products to adjust itself again to pre-war levels. A glance at the situation in regard to a few specific commodities will make this clear.

In the war period there was a great revival in the American beef-export trade because of the reduction in numbers of cattle in Europe and increased consumption because of the inclusion of beef in the Army ration. Exports to Europe from Argentina and Australia were maintained and even increased, but the supply from the usual sources was still inadequate and net exports from the United States of beef and beef cattle rose to more than 500,000,000 pounds in the last year of the war. After the war there was a decline in European imports of beef while increased supplies became available from Argentina. As a result, exports of beef from the United States declined so rapidly that three years after the close of the war the imports of beef, chiefly in the form of feeder cattle from Canada, exceeded the exports.

Exports of pork products also reached a high peak in the war period and declined after the close of the war, but the decline was checked in 1923 and 1924 by the large production and low prices at the peak of the hog-production cycle. The exports of pork products during the past year have been lower than any other year since the war, but are still above the five-year average just preceding the war. The low exports of the past two years may be only a temporary effect of the low production phase of the hog-supply cycle in the United States. If farmers react to the present high prices for hogs and low prices for corn as they have in the past, the production of the next two years again may be sufficient to provide large exports.

The net exports of wheat, including flour in terms of wheat, averaged 266,000,000 bushels for the three seasons immediately following the war, but in the past three years have averaged only 155,000,000 bushels. This decline has been due both to a reduction in the acreage and to a very short crop and low yields in 1925. Exports from this year's crop, however, are likely to amount to about 200,000,000 bushels and the area seeded for next year's crop is larger than was seeded for last year. In wheat production the United States is facing competition from other exporting countries stronger than before the war and European production is gradually recovering to pre-war levels.

Net exports of all dairy products in terms of milk equivalent reached 2,645,000,000 pounds in 1920. Four years later this net export was entirely wiped out and since 1924 the United States has been a net importer of dairy products. Exports of condensed and evaporated milk, however, which accounted for the greater part of the dairy products exports of 1920 still continue heavier than before the war and still exceed those of any other country except the Netherlands. In butter and cheese the exports of the United States had been comparatively unimportant for 10 years before the war. They increased considerably during the war period because of decreased competition from Denmark, the Netherlands, Switzerland, and Italy. But after the war, owing to recovery of production in Denmark and increased competition from New Zealand, Australia, Argentina, and Canada, our butter and cheese exports again declined to a small border trade, and in the past few years exports have frequently been exceeded by imports as in the year just closed.

While exports of many farm products have decreased, exports of other farm products have either increased or have been sustained at a relatively high level.

The trend of exports of raw cotton, which constitutes about 50 per cent of the value of all American agricultural exports, is quite the reverse of that of exports of all other farm products. Cotton exports increased steadily to a peak in 1911-12, then declined until 1918, then increased again with some year to year fluctuations to the present season, which if it bears out its promise will be second only to 1911-12 as a season of cotton exports. But while the volume of exports will be larger, the value of the exports may be lower than in any season since the war.

Exports of leaf tobacco were well sustained during the World War, and immediately after the war there were two years of exceptionally heavy exports. Since that time leaf tobacco exports have averaged 497,000,000 pounds a year, as compared with 360,000,000 pounds in the five years just preceding the war.

Before the World War the United States was a net importer of rice, but in 1919-20 there was for the first time a net export of this grain. In the year ending June 30, 1922, the net export of rice reached 667,000,000 pounds. From this point exports declined sharply until the season 1925-26, when the United States was again on a net importing basis. In the present season, however, it is probable that there will again be a considerable net export.

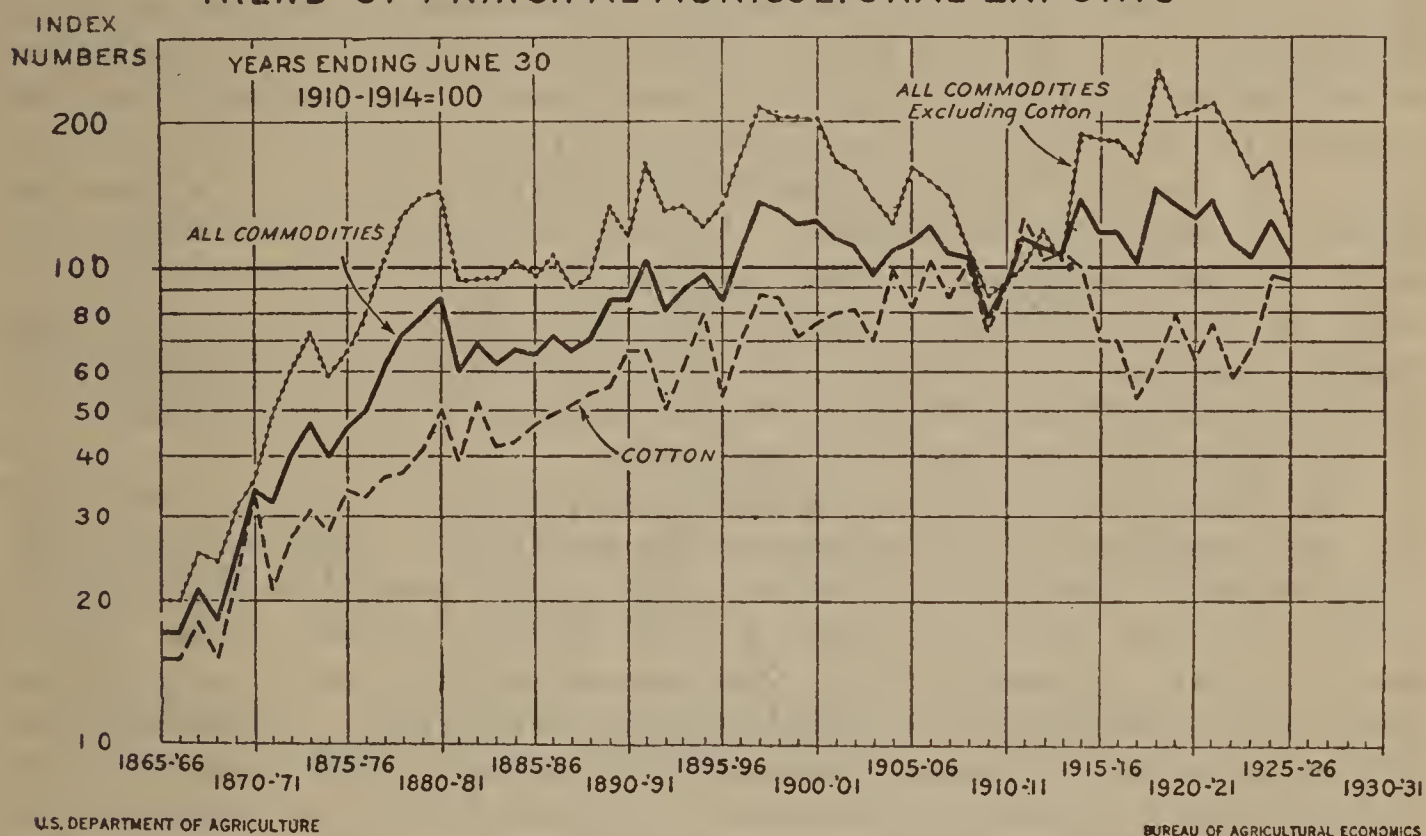
Exports of fresh, dried, and preserved fruits have shown a remarkable increase since the war period. In the last five years exports of apples, pears, oranges, grapefruit, prunes, raisins, and canned fruits were all well above the exports either of war or pre-war years. There

is foreign competition for markets for all these commodities, but the United States has maintained and strengthened its competitive position and there is every reason to believe that this profitable trade will continue.

The chart attached shows on a logarithmic scale the course of agricultural exports from the close of the Civil War to date. The rapid upward trend until the year ending June 30, 1898, was followed by a decline from 1898 to 1910, remained low until the beginning of the World War, then rose until 1919, then declined. Cotton exports increased until the year ending June 30, 1911, then declined through the early years of the war, and have shown an upward trend during the last four years. Grouping so many products together of course obscures the movement of such products as rice, fruits, and tobacco.

Our relations to the world production of and foreign markets for the different agricultural products are continually shifting, and as far

TREND OF PRINCIPAL AGRICULTURAL EXPORTS



as we can now see ahead such shifts are likely to continue. Foreign competition is increasing in many lines, while an increasing industrial population in the United States is tending to place more commodities upon an import basis. In the course of the full development of the agricultural resources of the country it is probable, however, that the production of some commodities, for short periods at least, will increase more rapidly than domestic requirements and will have to find foreign markets for larger quantities.

IS IT PROBABLE THAT IN THE NEXT FEW YEARS THERE WILL BE A GREATER DEMAND FOR AMERICAN FARM PRODUCTS AT A PRICE REMUNERATIVE TO THE PRODUCERS?

The demand for American agricultural products at prices remunerative to American producers in general is not likely to increase rapidly. In fact, producers of many agricultural products are facing severe competition from other countries where costs of production or the standards of living of producers are lower than in the United

States, and world market prices for these products are likely to continue at levels too low to be remunerative to many of the producers of the United States unless their costs of production can be considerably reduced. As for the producers of those products which are not now produced in sufficient quantities to supply our own needs, they may find an expanding market at remunerative prices provided they do not increase production too rapidly and that foreign production does not increase at a rate that will place large quantities on our own markets at low prices in spite of the protection afforded by the costs of importing and the tariff.

The demand for farm products is increasing, but slowly. The population of the United States is increasing at the rate of about $1\frac{1}{2}$ per cent per annum. The world population is increasing more slowly. The increase in population normally means an increase in demand for farm products. The shift of population in the United States from the country to the city causes the market demand for some agricultural products to increase more rapidly than the growth of population. On the other hand, the per capita consumption of wheat in the United States has declined. The demand for this product in the United States, therefore, is not increasing with population. In many foreign countries, however, the consumption of wheat seems to be increasing. Wheat is gradually displacing rye in European cities and to some extent rice in the Orient. The net effect of increased foreign consumption may be a continuation of the pre-war tendency to increase the world consumption per capita and thereby increase the demand for this product at a rate equal to or greater than the increase in population.

The demand for certain agricultural products has been reduced by the development of the automobile and truck. The reduction in the number of horses in the cities and to some extent in the country is reducing the demand in the United States for feed grains. The same tendency is developing in Europe and is likely to have a similar effect upon the foreign demand for our feed grains. It is possible, however, that the consumption of dairy, poultry, and pork products will increase and thereby increase the demand for such feedstuffs as are desired for feeding these animals sufficiently to offset the reduction in the demand from work stock. The continued growth of industrial cities should also continually increase the demand for fruit and vegetable products. The outlook, therefore, is for an increase in the demand for some agricultural products, while for others the demand may scarcely be maintained or may decline.

WHETHER HIGHER PRICES AMERICAN FARMERS MIGHT RECEIVE FOR THEIR STAPLE PRODUCTS WILL ENCOURAGE A LARGER PRODUCTION THEREOF

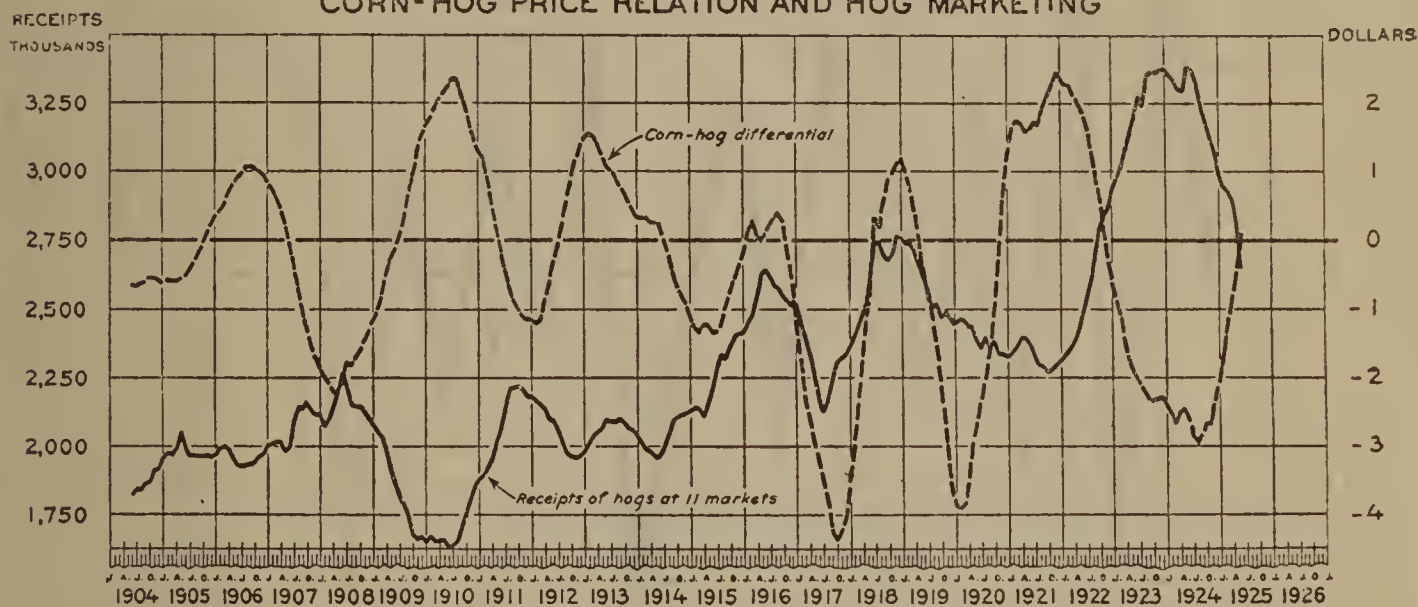
Past experience indicates clearly that higher prices for products tend to encourage a larger production. The effect of prices upon acreage of crops is very clearly shown in the case of cotton by an attached chart. This chart shows changes in cotton acreage and estimated changes based upon changes in the prices received for cotton. In this study of the relation of prices to the cotton area it is found that the area is affected directly by the prices being received for the last crop, the prices received for the previous crop, and the

relation of these prices to the prices of other commodities. The amount of fertilizer used, which, of course, affects the yields per acre, is also influenced by prices received for previous crops. Over a period of years the increase or decrease in area or production is influenced not only by the price that is received for the cotton itself but also by changes in costs of production.

Studies of hog production also show very clearly the influence of prices. High prices, especially when the price of corn is low, cause hogs to be fed to greater weights and breeding to be increased, whereas low prices of hogs with high-priced corn cause hogs to be marketed at lighter weights and breeding to be reduced.

If farmers continue to respond to prices as they have in the past, the only condition under which a rise in price can take place without causing an effort to increase production is that there be a corresponding or greater rise in prices of things that farmers have to use in production. It is possible, however, that with more information as to causes of changes in prices, the relation of quantities produced to returns for the product, and as to the profits that may be earned in other lines of activity, a considerable number of farmers may

CORN-HOG PRICE RELATION AND HOG MARKETING



require larger net returns from farming to induce them to continue production and thus permit or require a rise in prices of products without increasing production sufficiently to reduce or hold down prices.

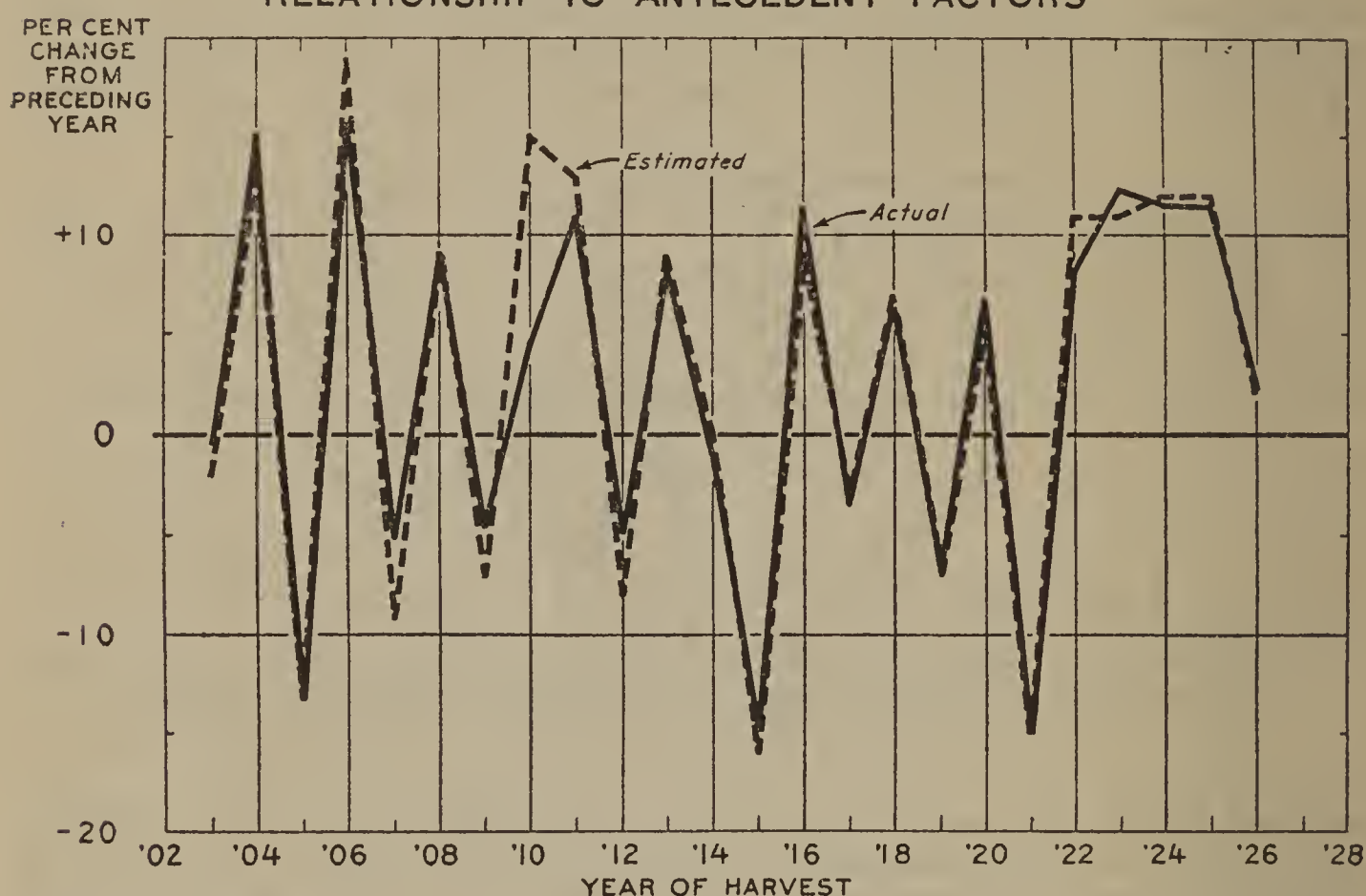
WHAT COOPERATION, IF ANY, THE DEPARTMENT RECEIVES FROM OTHER GOVERNMENTAL AGENCIES

In stimulating foreign consumption of American farm products and providing producers information as to the demand for these products the department has had the cooperation of the Consular Service of the Department of State, the Foreign Service of the Department of Commerce, and the International Institute of Agriculture at Rome.

The United States consuls in foreign countries have been very helpful by assisting in promoting the use of American standards in foreign countries, in facilitating the marketing of farm products abroad, and in providing useful information as to the condition of foreign markets and the character of competition to be expected

from foreign producers. Consuls located in cities having foreign cotton exchanges and large industries have assisted representatives of this department in making contacts with the exchanges and organizations of manufacturers to demonstrate cotton standards. They have been of great service in establishing the use of American standards in foreign grain markets and maintaining the goodwill of the trade with reference to these grades. To give a specific example: Having had some complaint from the Mediterranean markets about the condition of American grain delivered to those markets, the department sent a representative to review the situation. He arranged with the consul at Marseille, which is one of the most important centers of the trade, to have samples taken of cargoes the grade of which was reported by merchants to be not according to

ACTUAL PERCENTAGE CHANGES IN U.S. COTTON ACREAGE
HARVESTED AND CHANGES ESTIMATED FROM
RELATIONSHIP TO ANTECEDENT FACTORS



U.S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

standard. Since this arrangement has been made we have had practically no complaint from this territory. Consuls have also been of service in supplying information as to the markets for tobacco in Europe and the Orient, both by furnishing information as to the conditions of the market and by calling attention to factors that affect the purchases of American tobacco. Many reports are received from the Consular Service with reference to general conditions which affect the market for all kinds of American farm products.

The Bureau of Foreign and Domestic Commerce of the Department of Commerce has cooperated by preparing special reports as to conditions affecting foreign demand for agricultural products and the purchasing power of the foreign consumer, and by furnishing copies of all their foreign field reports bearing upon agriculture.

While the International Institute of Agriculture has not assisted directly in the marketing of American farm products in foreign markets, it has been of great assistance in supplying information as to foreign production and international trade in farm products. Through the International Institute of Agriculture the Department of Agriculture is able to keep in close touch with the production and crop conditions in all parts of the world. Each country telegraphs or cables the institute promptly estimates of crops and numbers of livestock, which are in turn cabled immediately to the United States. Reports on weather and crop conditions during the growing season are also cabled, making it possible often to estimate the probable outturn of crops in important competing countries in advance of harvest.

STATISTICAL TABLES

1. Crop acreages in the United States; average 1909–1913, annual 1919–1926.
2. Number of animals on farms, United States, January 1; average 1909–1913, annual 1919–1927.
3. Crop production in the United States; average 1909–1913, annual 1919–1926.
4. Swine: Number in certain countries at the beginning of the summer of 1927 compared with pre-war, 1921, 1925, and 1926.
5. European cattle and sheep: Number at the beginning or in the summer of 1926, exclusive of Russia, compared with 1925, 1921, and pre-war.
6. European area and production for specified crops; average 1909–1913, annual 1922–1925, exclusive of Russia.
7. Wheat: Acreage; average 1909–1913, annual 1921–1926.
8. Exports of cheese, butter, and beef from Argentina, Australia, and New Zealand and Canada; average 1909–1913, annual 1922–1926.

Crop acreages in the United States

[Bureau of Agricultural Economics]

Year	Wheat ¹	Corn	Oats	Rye	Cotton	Pota- toes	Hay	Total (19 crops)
	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>	<i>Million acres</i>
Average 1909–1913.....	52	104	37	2.2	34	3.7	67	² 301
1919.....	77	97	40	6.3	34	3.5	74	352
1920.....	66	102	42	4.4	36	3.7	74	345
1921.....	66	104	45	4.5	31	3.9	74	346
1922.....	68	103	41	6.7	33	4.3	77	348
1923.....	66	104	41	5.2	37	3.8	75	349
1924.....	56	101	42	4.1	41	3.3	76	342
1925.....	61	101	45	4.0	46	3.1	73	347
1926 ³	59	99	44	3.5	48	3.2	72	350

¹ Acreage sown.² Year 1909.³ Preliminary estimates.

Number of animals on farms, United States, January 1

[Bureau of Agricultural Economics]

Year	Cattle and calves			Hogs	Sheep
	Cows and heifers 2 years old and over kept for milk	Other	Total cattle and calves		
Average 1909-1913.....	Millions 1 18.8	Millions 38.1	Millions 56.9	Millions 60.9	Millions 53.2
1919.....	1 21.2	49.1	70.3	74.6	48.9
1920.....	21.4	47.5	68.9	59.3	39.0
1921.....	21.4	45.8	67.2	56.1	37.5
1922.....	21.8	45.5	67.3	58.3	36.2
1923.....	22.1	44.1	66.2	68.4	37.2
1924.....	22.2	42.3	64.5	66.1	38.3
1925.....	22.5	39.5	62.0	55.6	38.1
1926.....	22.1	37.0	59.1	52.1	39.9
1927 (preliminary).....	21.8	35.7	57.5	52.5	41.9

1 Unpublished estimate by the Division of Crop and Livestock Estimates. Based on the ratio of change - average 1909-1913 to 1920, former census classification.

Crop production in the United States

[Bureau of Agricultural Economics]

Year	Wheat	Corn	Oats	Rye	Cotton	Pota- toes	Hay	Index of produc- tion of 10 crops
Average, 1909-1913.....	Million bushels 690	Million bushels 2,712	Million bushels 1,143	Million bushels 36	Million bales 13.0	Million bushels 358	Million tons 82	Per cent 100
1919.....	970	2,811	1,184	75	11.4	323	105	108
1920.....	833	3,209	1,496	60	13.4	403	105	117
1921.....	815	3,069	1,078	62	8.0	362	98	100
1922.....	868	2,906	1,216	103	9.8	453	112	110
1923.....	797	3,053	1,306	63	10.1	416	107	110
1924.....	864	2,309	1,503	65	13.6	422	112	111
1925.....	676	2,917	1,488	46	16.1	323	98	112
1926 1.....	832	2,645	1,254	40	18.6	356	96	114

1 Preliminary.

Swine: Number in certain countries at the beginning of the summer of 1927 com-
pared with pre-war, 1921, 1925, and 1926

[Division of Statistical and Historical Research]

Date	Germany 1	Denmark	Norway 1	Poland	Canada
Pre-war average 2.....	1,000 22,533	1,000 2,715	1,000 334	1,000 5,231	1,000 3,350
1921.....	14,179	1,430	127	5,425	3,905
1925.....	16,895	2,517	253	4 5,500	4,426
1926.....	16,200	3,034	303		4,471
1927.....	19,412				

1 Estimates for countries reporting as of December have been considered as of January 1 of the following year.

2 Average for 5 years immediately preceding war if available. Otherwise, for any years within this period except as otherwise stated. In countries having changed boundaries the figures are estimates for one year only of numbers within present boundaries.

3 September

4 Year 1924

European cattle and sheep: Number at the beginning or in the summer of 1926, exclusive of Russia, compared with 1925, 1921, and pre-war

[Division of Statistical and Historical Research]

	Cattle in 12 coun- tries	Sheep in 11 coun- tries
	1,000	1,000
Pre-war.....	61,156	80,644
1921.....	56,570	70,924
1925.....	59,405	78,062
1926.....	59,899	79,527

European area and production for specified crops, average 1909-1913, annual 1922-1925, exclusive of Russia

[Bureau of Agricultural Economics]

Year	Wheat	Rye	Barley	Oats	Corn	Potatoes	Total
AREA	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres
1909-1913 average.....	72.9	45.2	27.0	49.4	26.4	25.5	246.4
1921.....	63.8	35.9	25.2	44.0	24.4	23.9	217.2
1922.....	64.6	38.3	26.0	45.7	24.7	25.3	224.6
1923.....	65.6	39.2	27.2	46.2	24.4	25.1	227.7
1924.....	66.7	37.7	27.5	46.6	25.6	25.4	229.5
1925.....	68.8	40.6	27.3	46.1	27.0	25.8	235.6
1926 (preliminary estimate).....	69.3	40.2	27.0	46.4	26.7	25.6	235.2
PRODUCTION	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels	Million bushels
1909-1913 average.....	1,348	978	701	1,931	581	4,166	-----
1921.....	1,216	760	530	1,511	393	3,090	-----
1922.....	1,044	716	601	1,543	424	4,802	-----
1923.....	1,257	826	667	1,812	473	3,869	-----
1924.....	1,053	651	576	1,631	591	4,218	-----
1925.....	1,402	941	695	1,793	627	4,763	-----
1926 (preliminary estimate).....	1,231	754	693	1,948	673	3,833	-----

Wheat: Acreage—average 1909-1913; individual years, 1921-1926

Year	Esti- mated world total excluding Russia	Esti- mated total Europe excluding Russia	Canada	Argen- tina	Austra- lia	Russia	United States
	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres	Million acres
1909-1913.....	204.2	72.9	9.9	16.1	7.6	74.2	47.1
1921.....	223.4	63.8	23.3	14.2	9.7	38.3	63.7
1922.....	226.8	64.7	22.4	16.3	9.8	24.4	62.3
1923.....	229.6	65.6	22.9	17.2	9.5	32.7	59.7
1924.....	222.6	66.7	22.1	17.8	10.8	46.1	52.4
1925.....	227.3	68.8	22.0	19.2	10.2	54.3	51.8
1926 (preliminary).....	232.0	69.3	22.8	19.3	11.0	-----	57.6

Exports of cheese, butter, and beef from Argentina, Australia, New Zealand, and Canada, average 1909-1913, annual 1922-1926

[Bureau of Agricultural Economics]

CHEESE

Year	Argentina	Australia	New Zealand	Canada
Average 1909-1913	<i>1,000 pounds</i> 16	<i>1,000 pounds</i> 799	<i>1,000 pounds</i> 55,561	<i>1,000 pounds</i> 167,260
1922	14,829	² 5,454	130,054	120,177
1923	11,670	² 3,788	161,444	116,202
1924	3,461	² 10,354	178,582	121,466
1925 ⁴	657	³ 9,549	154,196	150,743
1926 ⁴				134,657

BUTTER

Average 1909-1913	6,934	77,859	38,761	3,973
1922	53,977	78,975	125,462	21,505
1923	61,486	53,798	140,016	13,174
1924	65,437	111,086	142,179	22,344
1925 ⁴	59,282	128,494	139,476	26,647
1926 ⁴				9,814

BEEF AND BEEF PRODUCTS

Average 1911-1913	940,300	301,882	80,543	6,448
1922	1,083,747	269,083	117,610	27,327
1923	1,423,964	² 155,722	141,494	24,380
1924	1,917,631	² 381,233	131,137	25,522
1925 ⁴	1,694,255	² 215,090	138,672	36,312
1926 ⁴				24,130

¹ Four-year average.

² Year beginning July 1.

³ International Yearbook of Agricultural Statistics.

⁴ Preliminary.



